

**EDUCATIONAL TECHNOLOGY PLAN – July 1, 2006-June 30, 2009**

District/Agency:	Manchester Public Schools	
District Code:	077	
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Signature of Superintendent:		Date: June 9, 2006
Date Submitted to Board of Education:	June 12, 2006	
Date Approved by Board of Education:	June 26, 2006	

**For RESC/SDE Use Only:**

RESC Regional Reviewer:		Date:
RESC Recommendation for Approval:	Yes / No / Conditional	Date:
SDE Authorization:		Date:

## Technology Plan Preparation Check-Off Page

The submitted plan has the following:

- ☐ Cover Page
- ☐ Technology Plan Preparation Check-Off Page
- ☐ LEA Federal Grant Program Compliance Form
- ☐ LEA Profile
- ☐ Technology Planning Committee
- ☐ Vision Statement
- ☐ Needs Assessment
- ☐ Goal 1
- ☐ Goal 2
- ☐ Goal 3
- ☐ Goal 4
- ☐ Goal 5
- ☐ Goal 6
- ☐ Goal 7
- ☐ Technology Funding Sources and Costs
- ☐ CIPA Certification

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Signature of Authorized LEA Agent

June 9, 2006

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Date

## LEA Federal Grant Program Compliance Form

### Manchester Public Schools

Name of Local Education Agency (LEA), i.e. School District, Consortium or Charter School submitting this plan. **If Consortium, list all members in the space below.**

Developing a comprehensive technology plan based on the educational goals of the school system will ensure that the most appropriate technologies are effectively infused into your instructional and/or administrative programs. Thorough planning also ensures that all parties have equitable access and achieve the greatest benefit from routine use of educational technology. The comprehensive technology plan should demonstrate clear targets for technology use, spell out desired goals for learners, create visions for future directions, build "buy-in" from stakeholders, and demonstrate to those who might provide funding that a district or charter holder is ready to act.

School Districts, Consortia or Charter Schools (LEAs) who apply for technology funding through any Federal grant program are required to have developed a comprehensive, three-year plan, which outlines how the agency intends to utilize and integrate educational technology.

The applying agency (check all that apply)

XX is compliant with the provisions of the Children's Internet Protection Act (CIPA). [Elementary and Secondary Education Act (ESEA) P.L. 107-110, Section 2441]

\_\_\_\_\_ will be CIPA compliant by this date. \_\_\_\_\_

\_\_\_\_\_ has applied for E-Rate Funding for FY 2006.

The LEA's comprehensive technology plan must be approved by the local board of education.

Date the plan was approved: June 26, 2006

**OR**

Date the plan is to be submitted for board approval: \_\_\_\_\_

**Certified by:**

\_\_\_\_\_  
Signature of Superintendent

June 9, 2006  
Date of Signature

Kathleen M. Ouellette, Ed.D.  
Printed Name of Superintendent

## LEA Profile

This information should provide a “snapshot” of your district and help planners and reviewers to understand areas of need. This information will also assist the State to establish priorities in the provision of resources to districts. The SDE is particularly interested in the capability that each LEA has to access resources that will be placed onto the Connecticut Education Network (CEN) and additionally, the capability of each district to access online versions of the CMT and CAPT.

LEA NAME: Manchester Public Schools	
<p>If CMT and CAPT are administered online at some point in the future, certain testing conditions would be desirable at every school. Ideally these include the following:</p> <ul style="list-style-type: none"> <li>▪ All of the students in each grade level have access to the state assessment at the same time;</li> <li>▪ Students are grouped in clusters of no more than thirty and all have access to the assessment at the same time (<i>classrooms with only one or two computers would not be appropriate for testing</i>);</li> <li>▪ Students remain in their own school; and</li> <li>▪ The computers have high-speed internet access.</li> </ul> <p>Your completion of the chart below will help the CSDE to better understand the state’s technical readiness for online testing.</p>	
Maximum number of grade 4 students who could be accommodated under the above conditions	178
Percentage of grade 4 students who could be accommodated under the above conditions (number accommodated/total number of grade 4 students)	34.2%
Maximum number of grade 6 students who could be accommodated under the above conditions	125
Percentage of grade 6 students who could be accommodated under the above conditions (number accommodated/total number of grade 6 students)	29.3%
Maximum number of grade 8 students who could be accommodated under these conditions	135
Percentage of grade 8 students who could be accommodated under the above conditions (number accommodated/total number of grade 8 students)	29.4%
Maximum number of grade 10 students who could be accommodated under the above conditions	489
Percentage of grade 10 students who could be accommodated under the above conditions (number accommodated/total number of grade 10 students)	92.8%

## TECHNOLOGY PLANNING COMMITTEE

The Technology Planning Committee should represent all stakeholders. Development of the technology plan and implementation of the plan should enable parents, educators, students and community members to benefit from the investment in technology and all should have representation on the committee.

Member	Title	Constituency Represented
Kathleen Ouellette, Ed.D.	Superintendent	All Stakeholders including BOE
Linda Gejda	Supervisor of Math/Science/Tech	Students and Staff Pre K - 12
Lisa Plavin	K-8 Library/Media	Library/Media Specialists
Jen Jalbert	Tech Coach	Elementary Schools
Bill McDougal	Tech Coach	Elementary School Teachers
Doug von Hollen	Ed Tech Coach	Middle Schools
Tony Gasper	Guidance/Tech/ Career Dev.	High School
Mike Pennington	IT Support	K-8 Tech Support
Gail Myers	IT Tech Supervisor	IT Support Staff
Shelly Matfess	Secondary Special Ed Supervisor	Special Education Students and Teachers
Jack McCoy	Town Information Technology	The Municipality and Community
Donna Fitzgerald	Principal	Town-wide Administrators
Patricia Brooks	Director of Business	School District
BOE Members	BOE	BOE/Parents/Students/Community

### Long-term role of the Committee:

The role of the technology committee in developing, implementing and evaluating the technology plan is to collectively and collaboratively represent the educational technology stakeholders of the Manchester Public Schools. Committee members are selected for their experience and expertise in the use of educational technology. They represent individuals that benefit from the district investment in technology and provide feedback on needs as well as the effectiveness of educational technology in the Manchester Public Schools. Committee members seek to implement the vision of the district educational technology plan. Tentatively, the members of this committee will meet twice per school year to review the status of the district plan.

## VISION STATEMENT

A technology-supported instructional model integrates innovative concepts about teaching, learning, school culture, adult, student, parent, and community roles. Our students need learning to be set within a large conceptual and social context so that they can make connections, construct meaning, and apply their learning. Our democratic nation demands an educated citizenry that values diverse perspectives, so learning in such a context implies social interaction. Socialization within the classroom and connectivity beyond the classroom become important instructional goals, processes, and learning outcomes. Our virtual environment includes connectivity to key people and technology tools. “Systematic connectivity” allows us to extend time and overcome geographic barriers to provide an education that is truly “systemic” with the entire community learning and centered on the student. In a technological environment, traditional teachers are valued, as are

- parents, our first teachers, for their unique perspectives, first-order information, and primary guidance and support;
- business and industry partners for mentoring toward workplace competencies in a “21<sup>st</sup> Century Electronic Work Guild” experience;
- senior citizens for intergenerational contact and “more experienced” perspectives;
- peers across district, regional, state, and national boundaries for sharing and analyzing data, presenting ideas.

Technology, used appropriately and poised at the site of teaching and learning, is a powerful tool. With it, we can transform our educational environment to be one that is both student-centered and knowledge-centered. A knowledge-centered environment includes important bodies of knowledge which will be helpful to students as they move through a course of study sequences toward their graduation into a knowledge-based workforce. Because all knowledge and information available cannot possibly be reviewed, stored, and retrieved in the human brain, some of the critical components of a knowledge-centered environment are skill sets that will help students to access information and to create knowledge.

A technology-enriched environment can also assist educators in planning the needs of individual students and the needs of society. With the assistance of technology, we can create a model for intellectual curiosity and inquiry in which students learn to recognize problems and create alternative solutions that are situated in meaningful social context. Students become self-directed learners in setting purposes, forming critical opinions, reflective and responding in collaborative settings.

Through inquiry-based teaching and learning, students become work generators, organizing information not only to solve problems but also to formulate problems in order to prepare as productive citizens. In a project-based environment, where higher order thinking is expected, students must be fluent in basic skills such as interpreting, conclusion drawing, questioning, in order to actively process information, construct knowledge, and work with complex ideas.

The implications of this culturally and instructionally reformed classroom are great. This is a harbinger of role change for students, teachers, parents, and businesses. Professional development needs to be front-loaded and continuous. Equity of access of technology is important for all students, reflective of their individual needs.

In a technological and professional community, we are all learners as well as teachers. Students become workers and teachers in order to learn. Teachers become learners again, learning from each other, from students, from parents, and from business people. Throughout the Industrial Age, schools were seen as sites to sort and select students for college and “success” or for a workforce that demanded little more than a sixth grade education. However, in an era in which work productivity hinges upon workers’ and teams’ abilities to sort and evaluate vast amounts of information, the educators, who teach the future workforce, understand that knowledge and information growth is

exponential. A teacher's role is no longer to find which students will be successful and train them. Rather, it is one to assist all students to become contributing members to the global economy and to society.

This dramatic shift in the meaning of the icon "teacher" must be preceded and spurred by a shift in the nature of professional development. In this technological schoolhouse, teachers have a tolerance for ambiguity and open-endedness because an inquiry-based environment demands it. On-going professional development includes training in: technology literacy, technology support skills, and management of the technology-enriched classroom. Perhaps more importantly, the professional development program offers the advantage of technology environment as a way of teaching and learning. This effort requires a refocusing of professional development, expanding our growth as teachers through ongoing support with opportunities for reflection.

The promise of technology becomes a key challenge. Appropriate levels of technology can be the great equalizer in a society that seeks to service all toward productivity. Technology can accommodate and mitigate physically and cognitively-challenged students. It can improve the functioning capabilities of individuals with learning disabilities. When students of all socio-economic levels have equal access to technology, then all students have an equal opportunity to access knowledge, store, retrieve, and organization information; conduct original research and design; and present themselves...all workforce skills which our society demands.

The district technology plan addresses the following:

- **Curriculum and Instruction:** To utilize technology to improve students' ability to process information, acquire knowledge, and be motivated to learn;
- **Professional Development:** To provide technology integration at the site of teaching and learning through ongoing professional development;
- **Infrastructure:** To maintain a core technical infrastructure to support the integration of technology at each school;
- **Access:** To endure equitable access to technology K-12, supported by sufficient technical services;
- **Efficiency:** To promote efficiency in school operations for all personnel and their areas of responsibility;
- **Community Collaboration:** To use technology to facilitate internal and external collaborations;
- **Evaluation:** To evaluate the plan and to monitor, adjust and report on its implementation.

## NEEDS ASSESSMENT

Decisions impacting educational technology planning and integration will be informed through several tools that will facilitate the collection of data concerning the status of educational technology in the Manchester Public Schools. Initially, a district-wide technology audit will be conducted by the Capitol Region Education Council (CREC) and completed in Fall 2006. This audit will generate recommendations for district consideration and data to assist in planning, decision-making and on-going revision of the district technology plan. Likewise, annual district technology inventories and staff surveys concerning professional development needs will be utilized. District-wide tech support personnel and building-level educational technology coaches will provide on-going feedback at monthly meetings. Finally, scheduled meetings of the district-wide technology committee and review of technology plan progress will complete the process.

# Manchester Educational Technology Template

## Glossary of Terms

**BOD:** Board of Directors

**BOE:** Board of Education

**Graphic Organizers:** Graphic organizers are visual representations of knowledge, concepts or ideas. They are known to help \* relieve learner boredom\* enhance recall\* provide motivation\* create interest\* clarify information\* assist in organizing thoughts\* promote understanding.

**NETS:** National Educational Technology Standards

**Job-alike:** Grouping together of professionals with similar responsibilities

**PD:** Professional development; Training for teachers, staff, and administrators

**Screen Reading Software:** It controls and sends screen information to the speech synthesizer enabling it to read what is on a computer screen.

**Text-to-speech:** Text-to-speech converts text into the spoken word.

**Train-the-trainers model:** A model of providing training in which a smaller, representative group of professionals receives training directly from a vendor or reseller. Each of these directly trained professionals then trains another small group, thus spreading the knowledge throughout the organization. Train-the-trainers is typically used to reduce the overall cost of training (professional development).

**Voice Recognition Software:** Voice recognition software translates voice commands and is used in place of a mouse and keyboard.

**Work order system with a growing knowledgebase:** A system through which requests for technical support are entered, tracked, and resolved. The knowledgebase allows technicians to maintain a database of effective techniques from previous repairs.



**Goal 1: Improve student academic achievement through the use of technology in elementary and secondary schools with a target of fully integrating technology into the academic curriculum by December 2006.**

*The following must be addressed:*

- *Describe how the LEA will ensure all students have educational opportunities to achieve academic success through proven strategies of researched-based successful practices;*
- *Describe how the LEA will meet the Student Computer Technology Competency Standards;*
- *Describe how the LEA will provide resources that reflect scientifically-based research and best practices focused on improving student achievement; and*
- *Describe how the LEA will encourage the development and utilization of innovative strategies for the delivery of specialized or rigorous academic courses and curricula through the use of technology. Include any plans to promote technology-based distance learning opportunities to meet the educational needs of those who have limited access to such courses and curricula due to geographical isolation or insufficient resources.*

<b><u>Objective</u></b>	<b><u>Strategy</u></b>	<b><u>Accountability Measure</u></b>	<b><u>Timeline</u></b>
Assessment of district educational technology needs	Comprehensive district technology audit	Recommendations for educational technology plan consideration and revision	Fall 2006
The district will develop K-12 technology benchmarks based on the State Information & Technology Framework.	District teams will review and adapt with CREC assistance.	K-12 framework is completed, distributed and used to drive staff development.	Spring 2006
Grade level lesson plans aligned with the K-12 benchmarks will be implemented.	District teams will develop technology based lesson plans by grade level.	Student products and assessment.	2006
High school students will demonstrate proficiency in technology.	Students demonstrate an ability to solve complex real-world problems using appropriate technology as defined in the Information Technology Graduation requirement at MHS	Monitor number of students who meet the requirement.	Class of 2006 and thereafter
Full time library media specialist	Budget for increased staffing In FY 2007-2008	Incorporate funding into 2007-2008 budget	End of 2006 and thereafter
Regular updating of school websites	Designate and support staff member in each school	Websites updated monthly	Fall 2006

**Goal 2: Ensure that all educators are proficient in the use and integration of technology and ongoing professional development activities are provided.**

The following must be addressed:

- *Describe how the LEA will provide all teachers, (including library-media specialists, bilingual and ESL teachers, special and alternative education teachers) non-instructional staff, principals and administrators, incentives to become technologically competent;*
- *Describe how the LEA will monitor staff technological literacy. Indicate how the LEAs monitoring of technological literacy impacts professional development;*
- *Describe how the LEA will provide specific research-based professional development opportunities to all staff; and*
- *Describe how the LEA will provide specific professional development opportunities to all staff that demonstrates the research connecting student achievement and the use of technology.*

<b><u>Objective</u></b>	<b><u>Strategy</u></b>	<b><u>Accountability Measure</u></b>	<b><u>Timeline</u></b>
Conduct district-wide needs assessment of teachers, administrators, and support personnel.	Conduct a district-wide needs survey of all teachers, administrators, and support personnel.	Surveys will be collected by school technology coaches and reviewed by district technology administrators.	Spring 2006 & Ongoing as Necessary
Provide professional development and support in appropriate technologies for all teachers and school staff to support technology competency.	Use district-wide needs survey to guide development of district offered P.D. in technology.	Use workshop evaluations as a measure of workshop success.	Yearly - Ongoing
Teachers and administrators are required to accumulate CEUs as outlined by the CSDE.	Update and expand district course offerings. Provide funding for out of district or on-line training and conferences.	Staff meets their technology CEU requirements. District Technology CEU offerings	Ongoing
Encourage participation in conferences, workshops offered in district and out of district , on-line or through distance learning.	Support staff attendance with available resources.	Data collected shows increase in staff development attendance.	Ongoing
Site based Tech plan linked to district tech plan	Template and support	All MPS schools have a site-based tech plan aligned with district tech plan.	2006-2007

**Goal 3: Ensure that K-12 educational institutions have the capacity, infrastructure, staffing and equipment to meet academic and business needs for effective and efficient operations.**

The following must be addressed:

- *Describe how the LEA will ensure that all facilities meet minimum standards of technology infrastructure and provide connectivity to the Connecticut Education Network (CEN);*
- *Describe how the LEA will ensure continued maintenance and support of existing infrastructure and end user technology; and*
- *Describe the specific provisions the agency intends to make for the interoperability of the technologies. (Interoperability is the capability of the technology to be acquired to function compatibly with technologies that exist or will be acquired in the near future at the local and state level.)*

<u><b>Objective</b></u>	<u><b>Strategy</b></u>	<u><b>Accountability Measure</b></u>	<u><b>Timeline</b></u>
Assessment of district educational technology needs	Comprehensive district technology audit	Recommendations for educational technology plan consideration and revision	Fall 2006
Meet State of CT minimum standards of technology infrastructure and provide connectivity to CEN.	<ul style="list-style-type: none"> <li>• Ongoing work by network committee to keep fibernet working at maximum potential.</li> <li>• Increase bandwidth by contacting CEN and extend access by adding Wifi/WiMAX access points.</li> </ul>	Reliable and stable connection to CEN using our private fiber network.	2006 - 2009
Ensure timely support for staff and maintenance for all hardware, software & infrastructure.	<ul style="list-style-type: none"> <li>• Create acquisition and replacement plan.</li> <li>• Keep support contracts up to date for critical hardware, software, &amp; fibernet.</li> <li>• Use work order system to ensure timely support based on priority of problem that will result in an ongoing knowledge base to draw from. Add technicians to meet state &amp; federal average ratio of technician to computer.</li> </ul>	<ul style="list-style-type: none"> <li>• Reports from work order system.</li> <li>• Maximum uptime for fibernet and hardware.</li> <li>• Satisfaction of staff &amp; administration determined by online surveys, questionnaires, or suggestions.</li> </ul>	Ongoing
Ensure IEEE standards are met to ensure compatibility between old and new technologies.	Keep abreast with IEEE standard changes by monitoring IEEE website.	Uninterrupted and reliable utilization of all hardware & software	Ongoing
Purchase and replace hardware and software as needed to meet the needs of staff and students. OS X Server Software, Central Spectrum Server, Software District Wide Licenses.	Create acquisition and replacement plan	Feedback from staff using software and hardware.	

**Goal 4: Ensure that K-12 resources are available for all students, regardless of race, ethnicity, income, geographical location or disability, so they can become technologically literate by the end of eighth grade and achieve their academic potential.**

Items that need to be addressed:

- *Describe how the LEA will ensure that students with special needs will have those needs addressed through technology;*
- *Describe how the LEA will encourage innovative practices to support equity and reduce performance gaps based on race, national origin, sex and physical or mental disability;*
- *Describe how the LEA will ensure that all students will become technologically literate by the end of eighth grade and how the LEA will ensure that all students maintain or increase their technology literacy and improve their academic achievement; and*
- *Describe how the LEA will ensure equal access to all students, teachers, staff and administrators.*

<b><u>Objective</u></b>	<b><u>Strategy</u></b>	<b><u>Accountability Measure</u></b>	<b><u>Timeline</u></b>
Assessment of district educational technology needs	Comprehensive district technology audit	Recommendations for educational technology plan consideration and revision	Fall 2006
All students with disabilities will be provided with opportunities to reach their fullest potentials	<ol style="list-style-type: none"> <li>1. Technical assistance will be provided to staff</li> <li>2. Assistive Technology staff will review best practices</li> <li>3. Software applications will be utilized: i.e., graphic organizers, screen reading, and text-to-speech</li> </ol>	<ol style="list-style-type: none"> <li>1. Professional Development.</li> <li>2. Meetings to review student progress</li> <li>3. Student performance data</li> </ol>	<ol style="list-style-type: none"> <li>1. ·On-going</li> <li>2. ·Monthly</li> <li>3. ·2008</li> </ol>
Technology skills will be integrated in all curricular areas and all educational levels	<ul style="list-style-type: none"> <li>• Equal opportunity for course selection</li> <li>• Assistive Technology team reviews individual students to ensure accessibility</li> <li>• Upgrade stand alone software to network enabled software.</li> <li>• Alternate means of accessing grade level curriculum</li> <li>• Novels, tests, teacher notes scanned into Kurzweil or a similar application</li> <li>• Assistive Technology Teams will be established at the middle and elementary levels</li> </ul>	<ul style="list-style-type: none"> <li>• Review of student schedules</li> <li>• Review of student progress</li> <li>• Review by Assistive Technology Team</li> <li>• Planning and Placement Team Process</li> <li>• Professional Development</li> </ul>	<ul style="list-style-type: none"> <li>·By semester</li> <li>· Monthly</li> <li>·2007-2008</li> <li>·2007-2008</li> <li>·2007-2008</li> <li>·2007-2009</li> </ul>

<b>Objective</b>	<b>Strategy</b>	<b>Accountability Measure</b>	<b>Timeline</b>
All members of the learning community will have access to gathering information and communication via technology	<ul style="list-style-type: none"> <li>• Technology accessibility features will be utilized</li> <li>• Main Street free wireless access</li> <li>• Publicize MCC free wifi around campus.</li> <li>• City Wide WiMAX for Internet &amp; Fibernet Access</li> <li>• Specially equipped laptops will be acquired and a process developed for sign out</li> <li>• Mimeo capturing System,</li> <li>• IntelliKeys, Alpha Smarts will be purchased</li> <li>• IEP Plus software use will be expanded</li> <li>• All staff will have and utilize e-mail</li> </ul>	<ul style="list-style-type: none"> <li>• Professional Development</li> <li>• Student sign out sheet for laptops</li> <li>• Planning and Placement Team Process</li> <li>• Electronic IEPs</li> </ul>	<ul style="list-style-type: none"> <li>· On-going</li> <li>· As needed</li> <li>· Ongoing</li> <li>· Ongoing</li> </ul>
Through the use of assistive technology solutions accommodations will be developed for alternate access to curricular content	<ul style="list-style-type: none"> <li>• The Assistive Technology Team consults with families and school staffs to analyze, select, and implement technology systems that promote independence and educational success in the least restrictive environment, i.e., voice recognition software, text to speech, graphic organizers.</li> <li>• The interdisciplinary team provides training to students, school staff members, and parents in the use of assistive technology systems</li> </ul>	<ul style="list-style-type: none"> <li>• IEPS</li> <li>• Professional development</li> </ul>	<ul style="list-style-type: none"> <li>· As needed</li> <li>· As needed</li> </ul>
Regular updating of school websites that serve as a portal to educational/instructional resources	Designate and support for the staff member in each school	School websites updated	· Monthly
To provide access to the library catalogs throughout the school district	Continue to subscribe to technical support through Sagebrush or similar application	Library usage	· On-going
Students will demonstrate technological literacy	Students will complete an interdisciplinary eighth grade project ("Coining a Nation", Appendix A) utilizing skills reflecting K-8 student expected performances outlined in the six <i>NETS</i> competency standards.	Completed student project evaluated using common rubric	June 2006
High school students will demonstrate proficiency in technology.	Students demonstrate an ability to solve complex real-world problems using appropriate technology as defined in the Information Technology Graduation requirement at MHS	Monitor number of students who meet the requirement.	Class of 2006 and thereafter

**Goal 5: Develop a continuous process of evaluation and accountability for the use of educational technology as: a teaching and learning tool, a measurement and analysis tool for student achievement, and a fiscal management tool.**

The following must be addressed:

- *Describe how the LEA will evaluate and make changes to this plan on a yearly basis;*
- *Describe how the LEA will provide access for students to take on-line tests, when available, that facilitate their involvement and the compilation of results;*
- *Describe how the LEA will provide professional development to enable teachers and administrators to use data from the CMTs, CAPT and district- or classroom-based formative and summative assessments to improve instruction;*
- *Describe how the LEA will create, maintain or improve electronic resources to ensure administrative needs are addressed and solutions developed; and*
- *Describe how the LEA will implement technology initiatives to improve student achievement.*

<b><u>Objective</u></b>	<b><u>Strategy</u></b>	<b><u>Accountability Measure</u></b>	<b><u>Timeline</u></b>
Convene the town-wide committee to review, assess and revise goals and strategies annually	Set annual calendar of meetings to work, assess and revise goals	Log of meeting dates and examination of revisions	Mid May annually
Develop and implement an acquisition and replacement plan for computer hardware, software and networking	Review annual hardware inventory, assess prioritize needs and build budget on plan	Submission and revision of plan to district office and BOE	2006/07
Permanent BOE policy for predictable funding in place	Work with BOE, BOD and community members to understand short and long term needs and benefits of the plan	Presentation to all stakeholders as evidenced in minutes and on sign-in sheets	2006/07
Three year implementation of district-wide software for student achievement data, collection and analysis that incorporates teacher gradebook and report card functions	<ul style="list-style-type: none"> <li>• Survey vendors for appropriate software and do a comparative analysis base on vendor presentations of software to all stakeholders (admin., teachers, CO)</li> <li>• RFP written, posted and selection made</li> <li>• Purchase software and develop a roll-out plan</li> </ul>	<ul style="list-style-type: none"> <li>• At least three vendors will be contacted for software eval</li> <li>• Participant feedback on software viability</li> <li>• RFP document</li> </ul>	2006 - 2009
Town-wide job-alike and site-based PD in software use	<ul style="list-style-type: none"> <li>• Train the Trainers Model</li> <li>• Site-based or Job-alike training and support</li> <li>• Classroom level utilization to inform instruction</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor usage</li> <li>• Use of data to drive decision-making in the development of School Improvement Plans</li> <li>• Possible parent utilization of the system</li> </ul>	On-going
Work order system with a growing knowledge-base	Increase efficiency of support by tracking problems and solutions	Digital Log	On-going
Additional tech support to ensure optimal use of technology within the district	Hire enough technicians to better serve users who utilize data to improve student achievement	FTE comparison to state national average ratio of technician to technology	Phase in by 2009

## Goal 6: Develop a schema of current and future financing requirements to support the LEA's Technology Plan.

The following must be addressed:

- *Describe how the LEA will meet current and future funding requirements to support plan implementation;*
- *Describe how the LEA will develop policies and procedures related to maintenance of hardware, software, infrastructure and security; and*
- *Describe how the LEA will meet current and future funding requirements to keep the technology updated.*

<b><u>Objective</u></b>	<b><u>Strategy</u></b>	<b><u>Accountability Measure</u></b>	<b><u>Timeline</u></b>
Assessment of district educational technology needs	Comprehensive district technology audit	Recommendations for educational technology plan consideration and revision	Fall 2006
Manchester Public Schools will provide funding requirements through annual budgetary funds.	Annual budget request will reflect the needs of the district based upon a district-wide needs assessment.	Budget documents	Annual
Manchester Public Schools will develop an acquisition and replacement plan in order to maintain hardware, software, infrastructure and security.	MPS will collaborate with the Information Systems department of the Town of Manchester and a district wide committee to develop and implement an acquisition and replacement plan.	District wide acquisition and replacement plan adopted by the Board of Education	Ann
Develop and implement an acquisition and replacement plan for computer hardware, software and networking	Review annual hardware inventory, assess prioritize needs and build budget on plan	Submission and revision of plan to district office and BOE	2006/07

## Goal 7: Develop a telecommunications services plan that will support both instructional needs and administrative requirements.

The following must be addressed to qualify for participation in E-Rate Program:

- Clear goals and a realistic strategy for using telecommunications and information technology to improve education or library services;
- A professional development strategy to ensure that staff know how to use these new technologies to improve education or library services;
- An assessment of the telecommunications services, hardware, software and other services that will be needed to improve education or library services;
- A sufficient budget to acquire and support the non-discounted elements of the plan: the hardware, software, professional development and other services that will be needed to implement the strategy; and
- An evaluation process that enables the school or library to monitor progress toward the specific goals (of the eligible entity) and make mid-course corrections in response to new developments and opportunities as they arise.

(As you look at the above list, you will note that a number of these items should have already been addressed in Goals 1-6. If so, please reference your page numbers for those items. For those items not already discussed, please use the space below.)

Additionally, in broad terms, using the table below, describe where you are now, where you want to be in three years and how you expect to arrive at that point.

Objectives/Activities/Strategies	Monitoring and Evaluation Procedure
2006-07 <ul style="list-style-type: none"> <li>• Roll out IP telephony plan</li> <li>• Implement fiber optic link between MCC networks and fibernet</li> <li>• Work with state to increase CEN bandwidth</li> <li>• Implement wi-fi access for the public connected to Downtown Main Street wi-fi zone</li> <li>• Develop and implement an acquisition and replacement plan for computer hardware, software and networking</li> <li>• Provide professional development and support in appropriate technologies for all teachers and school staff to support technology competency.</li> <li>• Develop and implement an acquisition and replacement plan for computer hardware, software and networking</li> </ul>	<ul style="list-style-type: none"> <li>• Professional Development: Provide self-instruction and/or group instruction in advanced IP phone use: teleconferencing, voice-mail, forwarding, group notification through auto-dialing</li> <li>• Assessment: Does bandwidth support peak traffic? (no slowdown of internet access, no blocked calls)</li> <li>• Evaluation: Monthly tech coach meetings; IT work order system</li> <li>• Budget: Annual requests for sufficient funds; Apply for applicable grants including when common technology can be leveraged across the town</li> </ul>
2007-08 <ul style="list-style-type: none"> <li>• Add one more T1 link for internet access</li> <li>• Increase bandwidth at MHS</li> <li>• Create more wireless access points in classrooms at MHS addition, 6<sup>th</sup> grade academy and new Early Learning Center</li> <li>• Full time library media specialist</li> <li>• Provide professional development and support in appropriate technologies for all teachers and school staff to support technology competency.</li> </ul>	See above
2008-09 <ul style="list-style-type: none"> <li>• Implement wi-max IEEE 802.16 for townwide internet access</li> <li>• Provide professional development and support in appropriate technologies for all teachers and school staff to support technology competency.</li> <li>• Additional tech support to ensure optimal use of technology within the district</li> </ul>	See above



## Technology Funding Sources and Costs

ANNUAL BUDGET SUMMARY

YEAR 2006-2007

**NOTE: DUPLICATE THIS PAGE FOR EACH YEAR AS NEEDED**

- List the professional development and technologies to be acquired during each year of the agency's plan.
- Note: At least 25% of the funds allocated to an LEA through the *Title II-D ED Tech Program*, must be allocated for professional development activities. (*Current estimates indicate that Title II D funding will be reduced by ~40% in 2006-07 year from the 2005-06 level.*)
- Estimate the cost of the professional development and technologies in the appropriate column(s) from which the agency intends to take the funds.
- Describe how your district/charter coordinates or aligns the other federal, state, local funds with district/charter consolidated plans and/or individual schools' School Improvement Plans.

Acquired Technologies and Professional Development	Ed Tech Competitive/ Title II-D	Ed Tech Formula/ Title II-D	State Bond Funds	Capital	E-Rate	NCLB / other than Title II-D	Other (Specify): Board of Education BUDGET
Staff / Personnel							\$47,000
Equipment					2 Internet T 1 lines = \$1,646/ month \$19,752 Annually		\$295,000
Professional Development		\$10,000					\$32,000
Software							\$65,000
Services		\$3,000			2 PRI Links Costing \$14,388		\$26,000
<b>TOTAL</b>		\$13,000			\$34,140 Annually		\$465,000

## Technology Funding Sources and Costs

ANNUAL BUDGET SUMMARY

YEAR 2007-2008

**NOTE: DUPLICATE THIS PAGE FOR EACH YEAR AS NEEDED**

- List the professional development and technologies to be acquired during each year of the agency's plan.
- Note: At least 25% of the funds allocated to an LEA through the *Title II-D ED Tech Program*, must be allocated for professional development activities. (*Current estimates indicate that Title II D funding will be reduced by ~40% in 2006-07 year from the 2005-06 level.*)
- Estimate the cost of the professional development and technologies in the appropriate column(s) from which the agency intends to take the funds.
- Describe how your district/charter coordinates or aligns the other federal, state, local funds with district/charter consolidated plans and/or individual schools' School Improvement Plans.

Acquired Technologies and Professional Development	Ed Tech Competitive/ Title II-D	Ed Tech Formula/ Title II-D	State Bond Funds	Capital	E-Rate	NCLB / other than Title II-D	Other (Specify): Board of Education BUDGET
Staff/Personnel							\$197,000
Equipment					2 Internet T 1 lines = \$1,646/ month \$19,752 Annually		\$310,000
Professional Development		\$4,000					\$34,500
Software							\$46,000
Services					2 PRI Links Costing \$14,388		\$26,500
<b>TOTAL</b>		\$4,000			\$34,140 Annually		\$614,000

## Technology Funding Sources and Costs

ANNUAL BUDGET SUMMARY

YEAR 2008-2009

**NOTE: DUPLICATE THIS PAGE FOR EACH YEAR AS NEEDED**

- List the professional development and technologies to be acquired during each year of the agency's plan.
- Note: At least 25% of the funds allocated to an LEA through the *Title II-D ED Tech Program*, must be allocated for professional development activities. (*Current estimates indicate that Title II D funding will be reduced by ~40% in 2006-07 year from the 2005-06 level.*)
- Estimate the cost of the professional development and technologies in the appropriate column(s) from which the agency intends to take the funds.
- Describe how your district/charter coordinates or aligns the other federal, state, local funds with district/charter consolidated plans and/or individual schools' School Improvement Plans.

Acquired Technologies and Professional Development	Ed Tech Competitive/ Title II-D	Ed Tech Formula/ Title II-D	State Bond Funds	Capital	E-Rate	NCLB / other than Title II-D	Other (Specify): Board of Education BUDGET
Staff/Personnel							\$197,000
Equipment					2 Internet T 1 lines = \$1,646/ month \$19,752 Annually		\$310,000
Professional Development		\$1,400					\$37,600
Software							\$10,000
Services					2 PRI Links Costing \$14,388		\$26,500
<b>TOTAL</b>		\$1,400			\$34,140 Annually		\$581,100

## CHILDREN'S INTERNET PROTECTION ACT (CIPA) CERTIFICATION

Schools and libraries that plan on receiving E-Rate discounts on Internet access and/or internal connection services after July 1, 2002, need to be in compliance with the CIPA. CIPA compliance means that schools and libraries are filtering their Internet services and have implemented formal Internet safety policies (also frequently known as Acceptable Use Policies). Information on the CIPA requirements is located at [http://E-Ratecentral.com/CIPA/cipa\\_policy\\_primer.pdf](http://E-Ratecentral.com/CIPA/cipa_policy_primer.pdf).

I, Kathleen M. Ouellette, Ed.D., certify that one of the following conditions (as indicated below) exists in

Name of Superintendent/Director

Manchester Public Schools

LEA

- ☒ My district/agency is E-Rate compliant; or  
☐ My district/agency is not E-Rate compliant. (Check one additional box below):

X	Every "applicable school*" has complied with the CIPA requirements in subpart 4 of Part D of Title II of the ESEA**.
	Not all "applicable schools*" have yet complied with the requirements in subpart 4 of Part D of Title II of the ESEA**. However, the LEA has received a one-year waiver from the U.S. Secretary of Education under section 2441(b)(2)(C) of the ESEA for those applicable schools not yet in compliance.
	The CIPA requirements in the ESEA do not apply because no funds made available under the program are being used to purchase computers to access the Internet, or to pay for direct costs associated with accessing the Internet, for elementary and secondary schools that do not receive E-Rate services under the Communications Act of 1934, as amended.

\*An applicable school is an elementary or secondary school that does *not* receive E-Rate discounts and for which Ed Tech funds are used to purchase computers used to access the Internet, or to pay the direct costs associated with accessing the Internet.

\*\*<http://www.ed.gov/legislation/ESEA02/pg37.html>

June 9, 2006

\_\_\_\_\_  
Signature of Superintendent/Director

\_\_\_\_\_  
Date

## Appendix A:



# Coining a Nation



You will be randomly assigned one of the thirteen colonies to research. Following your exploration, you will be required to design a coin that represents your colony's path to freedom and role in the forming of a new nation. You will then present your coin to your class.

Your double-sided coin must include at least **six symbols/images**. Choose from the following list of elements to represent your colony's path (starred items are required):

- ☐ Year of Settlement \*\*\*
- ☐ Phrase / Saying \*\*\* (ie. In God We Trust)
- ☐ Significant Person \*\*\*
- ☐ Reason for Settlement / Type of colony
- ☐ Religion
- ☐ Economy
- ☐ Industry
- ☐ Agriculture / Crops
- ☐ Currency
- ☐ Important physical feature / geographical characteristics
- ☐ Work force
- ☐ Trade
- ☐ Government – charter
- ☐ Daily Life
- ☐ Interesting fact about the colony (ie. a number one for Jamestown, VA)
- ☐ Pre-involvement in American Revolution
- ☐ Map of colony
- ☐ Primary document
- ☐ Other (teacher approval necessary)

You will be given sufficient class time to complete this project if you use the reserved research time in the media center wisely.

### Requirements:

- ☐ Design a two-sided coin with at least six symbols/images
- ☐ Complete the attached Note Organizer to record the significance of symbols/images chosen and the sources used
- ☐ Use at least three sources (one book, one reliable general website, and one website from iconn.org) and submit a Works Cited page in accordance with Manchester's Middle School Works Cited Guidelines.
- ☐ Present your coin design to your class, fully describing each image's significance to your colony's history

This project will be due on \_\_\_\_\_.

Completion of the project entitled Coining a Nation demonstrates student proficiency in the following areas of technology:

## **Manchester's Technology Benchmarks for 8<sup>th</sup> Grade**

### ***Operational Skills***

- ✓ Follows the policies and operational procedures of the computer labs at the middle school
  - Demonstrates the ability to operate a PC or Mac based school computer
  - Successfully logs onto the school server using unique username and password
  - Can navigate between various school folders to create, save, retrieve, and print files
  - Demonstrates the ability to use basic features of personal productivity software

### ***Electronic Research Skills***

- ✓ Uses the electronic card catalog to locate print sources in the Media Center
- ✓ Uses a variety of search engines to locate information
- ✓ Uses online databases (Connecticut digital library) to locate information
- ✓ Determines key words and uses Boolean search techniques to search online
- ✓ Develops and applies criteria for evaluating internet sources (ie. differentiates between internet domains, authorship, purpose, currency, etc.)

### ***Productivity Skills***

- ✓ Uses advanced Word Processing skills to create a product
  - Page set-up (margins, spacing, etc.)
  - Text manipulation (size, color, font, alignment)
  - Thesaurus / Spell check
  - Inserting text boxes, pictures, symbols
  - Drawing tools / AutoShapes
  - Bullets
  - Tab Spacing
  - Columns / Tables
  - Cut, Copy, Paste
  - Print
- ✓ Demonstrates the ability to add graphics (online images or clip art) to other productivity software
- ☐ Uses spreadsheet program to express curricular concepts
  - Creates an original graph
  - Creates a table
  - Exports resulting product into word processing document or presentation slide
- ☐ Creates a multi-slide presentation to effectively share curricular concepts
  - Text and graphics used
  - Appropriate use of animation and sound

### ***Communication/Presentation Skills***

- ✓ Effectively uses the computer as a presentation tool to share information with attention to audience, purpose, topic, and content

### ***Ethical Use***

- ✓ Demonstrates responsible use of equipment
- ✓ Follows the district's acceptable use technology policy
- ✓ Cites sources appropriately
- ✓ Demonstrates ethical use of the computer in relation to security, privacy, passwords, and personal information

<b>UNIT: Settling the Colonies</b>	
<b>Project:</b> "Coining a Nation"	
<b>Author(s):</b> Eric Bernstein, Joe DePasqua, Mike Menefee, and Susan Schiavetti	
<b>Discipline:</b> Social Studies	
<b>Grade Level:</b> 8th Grade	
<b>Product:</b> Computer Generated Coin of one of the Thirteen Colonies	
<b>Performance Description:</b> This technology integrated social studies research project will be used as one of the assured technology experiences that the eighth grade students at Illing will complete to demonstrate their technological literacy and mastery of the established 8th grade benchmarks. After researching both print and online sources, students will design a computer generated coin for one of the Thirteen Colonies and submit a word processed Works Cited page. This collaborative effort meets both Manchester's curricular objectives and national standards for Social Studies, Information Literacy, and Technology. Student handouts, a teacher pacing guide, a sample coin design, and the rubric for assessment of proficiency are included.	
<b>SOCIAL STUDIES OBJECTIVES (Manchester)</b>	
<input type="checkbox"/> Examine the establishment of the 13 colonies to identify patterns and differences <input type="checkbox"/> Examine the development of self-government and democratic ideals in the colonies	
<b>INFORMATION LITERACY OBJECTIVES (Manchester)</b>	
<input type="checkbox"/> Defines information needs <input type="checkbox"/> Uses and applies criteria for evaluating sources <input type="checkbox"/> Searches, locates, collects, and evaluates information from a variety of sources <input type="checkbox"/> Uses a note taking strategy to structure information retrieved <input type="checkbox"/> Uses a variety of sources to create a product to present information <input type="checkbox"/> Creates a properly formatted works cited page <input type="checkbox"/> Shares information in a variety of formats <input type="checkbox"/> Demonstrates responsible and ethical use of equipment, information, computer security	
<b>8th GRADE TECHNOLOGY BENCHMARKS (Manchester)</b>	
<input type="checkbox"/> Electronic research skills (Boolean searching, use of search engines, CT digital library) <input type="checkbox"/> Word Processing skills (text manipulation, editing, graphics, auto shapes) <input type="checkbox"/> Mastery of presentation tool appropriate to topic, content, audience, purpose <input type="checkbox"/> Demonstrates ethical use of equipment, information, computer security <input type="checkbox"/> Operational: follows middle school policies and procedures	
<b>ISTE Standards for Technology (NETS)</b>	
<input type="checkbox"/> Basic operations and concepts <input type="checkbox"/> Social, ethical, and human issues <input type="checkbox"/> Technology productivity tools <input type="checkbox"/> Technology communications tools <input type="checkbox"/> Technology research tools <input type="checkbox"/> Technology problem-solving and decision-making tools	
<b>Social Studies Curriculum Frameworks: K-12 Content Standards</b>	
<input type="checkbox"/> History - 1 (Historical thinking: gather information from multiple historical sources, appreciate the need for multiple perspectives, analyze data in order to see persons and events in their historical context, develop presentations from investigations of source materials) <input type="checkbox"/> History - 2 (Local, US, and world history, demonstrate an indepth understanding of major events of US History) <input type="checkbox"/> History - 3 (Historical themes) <input type="checkbox"/> Civics and Government - 5 (US Constitution and Government) <input type="checkbox"/> Civics and Government - 6 (Rights and Responsibilities of Citizens) <input type="checkbox"/> Civics and Government - 7 (Political Systems) <input type="checkbox"/> Geography - 9 (Places and Regions) <input type="checkbox"/> Geography - 11 (Human Systems) <input type="checkbox"/> Economics - 14 (Economic Systems) <input type="checkbox"/> Economics - 15 (Economic Interdependence)	

Name:

Colony:

		Above & Beyond	Proficiency Standard	Developmental	Score
Social Studies Content	Content Information—Required		All three required elements are present and accurate. <b>(30 points)</b>	Two of three required elements are present and accurate. <b>(20 points)</b>	
	Content Information—Supplemental	Includes four or more accurate supplemental elements. <b>(40 points)</b>	Includes three accurate supplemental elements. <b>(30 points)</b>	Includes at least one accurate supplemental element. <b>(15 points)</b>	
	Coin Design 1		Coin design has two sides. Social studies content is on both sides of coin. <b>(10 points)</b>	Coin design has two sides. Social studies content appears only on one side of coin. <b>(5 points)</b>	
	Coin Design 2	Combination of text and graphics takes communication of content elements to a superior level with attention given to balance, proportion, harmony, and restraint. <b>(15 points)</b>	All content elements of coin are clearly defined and visible to the viewer. <b>(10 points)</b>	Content elements that are present are not clearly defined without explanation. <b>(5 points)</b>	
	Presentation	Audience engaged throughout presentation. All elements included on coin are identified by speaker and all elements are elaborated on with additional facts or background. <b>(30 points)</b>	All elements included on coin are identified by speaker and at least three elements are elaborated on with additional facts or background. <b>(20 points)</b>	All elements included on coin are identified by speaker. <b>(15 points)</b>	
Information Literacy and Research Skills	Note-taking	Notes organizer is filled out completely (including source information) with more than one supporting detail for each element (as appropriate). <b>(40 points)</b>	Notes sheet includes one supporting detail and source information for each element. <b>(35 points)</b>	Notes sheet includes one supporting detail for each element. <b>(25 points)</b>	
	Sources	Uses at least one book source, one database source, and one “reliable” web-site. Uses a total of four or more “reliable” sources. <b>(45 points)</b>	Uses at least one book source, one database source, and one “reliable” web-site. <b>(35 points)</b>	Uses at least two different, “reliable” sources. <b>(25 points)</b>	
	Works Cited Page	All elements have sources identified. All sources are properly cited using Manchester Middle School Works Cited Guidelines and Works Cited page is properly formatted. <b>(35 points)</b>	All elements have sources identified. All sources are properly cited using Manchester Middle School Works Cited Guidelines. <b>(30 points)</b>	All elements have sources identified. <b>(20 points)</b>	
	Total Score (proficiency standard is 90)				

### Technology Benchmark Completion Standards

Follows policies and operational procedures of computer use at IMS	Uses key words and Boolean search techniques to search online	Effectively uses the computer as a presentation tool to share curricular concepts
Uses online card catalog to locate print sources	Develops and applies criteria for evaluating internet sources	Demonstrates ethical and responsible use of equipment, information, and security
Uses a variety of search engines to locate information	Uses advanced Word Processing skills to create a product to express curricular concepts	
Uses online databases to locate information	Demonstrates the ability to add and manipulate graphics into other productivity software	



# Technology Plan Review Guide 2006

Reviewer/ RESC <b>S. Nierendor / CREC</b>	LEA: <b>Manchester Public Schools</b>	Date: <b>June 8, 2006</b>
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	Complete? (Y/N)	additional information required/comments
LEA Profile	Y	High % of Grade 10 students accommodated for online testing.
Technology Committee	Y	
Needs Assessment	Y	
Goal 1	Y	
Goal 2	Y	
Goal 3	Y	
Goal 4	Y	
Goal 5	Y	
Goal 6	Y	
Goal 7	Y	
Goal 8	n/a	
Technology Funding Sources	Y	

I Scott Nierendorf verify that Manchester Public Schools has successfully completed all of the requirements

Signature of Reviewer Name of LEA

as stated in the technology plan template.